



STATE OF TENNESSEE
DEPARTMENT OF ENVIRONMENT AND CONSERVATION
DIVISION OF WATER RESOURCES

Memphis Environmental Field Office
8383 Wolf Lake Drive
Bartlett, TN 38133
Phone 901-371-3000 Statewide 1-888-891-8332 Fax 901-371-3170

June 5, 2017

Mr. Rick McClanahan
Director of Utilities and Engineering
City of Bartlett
3585 Altruria Road
Bartlett, TN 38135

Re: Sanitary Sewer Collection System Inspection
 City of Bartlett
 NPDES Permit No. TN0066800
 Shelby County

Dear Mr. McClanahan:

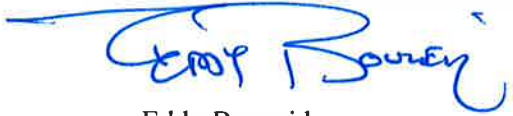
On Thursday, May 9, 2017, Mr. Eddy Bouzeid with the Division of Water Resources, Memphis Environmental Field Office (DWR/MEFO), conducted a Sanitary Sewer Collection System (SSCS) of the City of Bartlett. Upon arrival at the facility, Mr. Bouzeid met with Mr. Matt Crenshaw, Bartlett Public Works Division Manager, and stated that the purpose of the inspection was to evaluate the sewer collection system compliance with its National Pollutant Discharge Elimination System (NPDES). This was accomplished by reviewing the City's sanitary sewer records and reports, its self-monitoring program, and subsequently conducting an inspection of a lift station and three manholes in the collection system. Attached you will find the SSCS inspection report and corresponding photo documentation which summarize the findings of the inspection. The following are items to note regarding the inspection:

1. The City reported five (5) sanitary sewer overflows (SSOs) for the evaluation period from April 2015 through April 2017. None of the SSOs were reported reaching Waters of the State. Please be advised that the City's NPDES permit prohibits SSOs from the collection system and the City should take the necessary measures to eliminate SSOs.
2. At the time of the inspection, the City's has GIS mapping for the collection system and the lift stations. The GIS mapping appears to include information such as manhole locations, pipe sizes, pipe lengths and lift stations. According to Mr. Crenshaw, the City is in the process of enhancing its GIS mapping to include manhole depths, manhole materials and manhole IDs. The Division strongly encourages the City to proceed with the GIS enhancement procedures.

3. According to Mr. Crenshaw, the length of the collection system is 336 miles and only 40 miles have been inspected as of April 2017. The Division strongly recommends that the City pursue the inspection of the remaining 296 miles of the collection system, and subsequently develop a long term maintenance program.

The Division appreciates the cooperation and assistance of Mr. Crenshaw during the inspection and the City's continues efforts to reduce sanitary sewer overflows from its collection system. If you have any questions or comments with regard to the inspection please contact Mr. Eddy Bouzeid at (901) 371-3023 or eddy.bouzeid@tn.gov.

Sincerely,



Eddy Bouzeid
Environmental Protection Specialist
Division of Water Resources

Enclosures: Compliance Inspection Reports, Photographs

cc: TDEC/DWR/NCO, Enforcement & Compliance,
TDEC/DWR/MEFO – File

ec: Matt Crenshaw – Bartlett Public Works



TDEC - Division of Water Resources

ICIS NPDES Facilities Inspection Report

Facility Data

NPDES ID:	TN0066800	Facility Site Name	Bartlett STP #1		
		Address	5258 Shelter Run Lane, Bartlett, Shelby County, Tennessee		
Permit Eff. Date:	Aug 1, 2015	Permit Exp Date:	Sep 30, 2017	SIC Code:	

Compliance Monitoring Information

Compliance Monitoring Activity Name	Sanitary Sewer Overflow (non-Sampling)				
	* If Bio Monitoring is selected above, select the method used:				
Compliance Monitoring Activity	Evaluation				

Compliance Monitoring Dates/Times

Entry Date/Time (mm/dd/yyyy hh:mm):	5/9/2017 11:30	Exit Date/Time (mm/dd/yyyy hh:mm):	5/9/2017 14:30
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Facility Representatives

Matt Crenshaw (901) 385-5586 / Division Manager	Rick McClanahan (901) 385-6499 / Director of Engineering
On-Site Representative(s) Title, Phone Number	Responsible Official(s), Title, Phone Number

Statute and Section Information

Federal Statute:	CWA - Clean Water Act	State Statute:	Tennessee Water Quality Control Act
Programs:	NPDES- Base Program (Limits, Reporting, & Schedule)		

Compliance Monitoring Reason: Core Program

Compliance Monitoring Agency Type: State Agency Name: TDEC - DWR

Did EPA assist/ Inspection? No Time Physically conducting activity: Days: 1 Hours:

Inspection Type: State Compliance Monitoring Action Outcome:

Lead Agency: State Compliance Monitoring Rating Code:

If Joint Inspection, what was the purpose of the other party?



Areas Evaluated During Inspection (Check only those areas evaluated)

<input type="checkbox"/> Permit	<input type="checkbox"/> Self - Compliance Program	<input type="checkbox"/> Pretreatment
<input type="checkbox"/> Records / Records	<input type="checkbox"/> Compliance Schedule	<input type="checkbox"/> Pollution Prevention
<input type="checkbox"/> Facility Site Review	<input type="checkbox"/> Laboratory	<input type="checkbox"/> Storm Water
<input type="checkbox"/> Effluent / Receiving Waters	<input type="checkbox"/> Operations & Maintenance	<input type="checkbox"/> Combined Sewer Overflow
<input type="checkbox"/> Flow Measurement	<input type="checkbox"/> Sludge Handling / Disposal	<input checked="" type="checkbox"/> Sanitary Sewer Overflow

Compliance Monitoring Summary

See attached inspection report and/or letter.

EPA and State Representatives

	TDEC/DWR/MEFO (901) 371-3023	Jun 5, 2017
Inspector's Signature	Agency / Office / Phone	Date
	TDEC/DWR/MEFO (901) 371-3025	Jun 5, 2017
Manager's Signature	Agency / Office / Phone	Date

(Note: This form can only be printed to an XPS document, then saved for later use.)

TENNESSEE DEPARTMENT OF ENVIRONMENT AND CONSERVATION

Division of Water Resources

Memphis Environmental Field Office, 8383 Wolf Lake Drive, Bartlett, TN 38133

1-888-891-8332 (TDEC)

Compliance Inspection for Individual NPDES Permit

Facility Name: Bartlett STP #1	NPDES Tracking Number: TN0066800
Permit Effective Date: August 1, 2015	Permit Expiration Date: September 30, 2017
Date and Time of Inspection: 5/9/2017	Inspector Name: Eddy Bouzeid

Official Contact Person Name: Matt Crenshaw, Division Manager	
Address: 6400 Stage Road, Bartlett, TN 38134	Phone Number: (901) 385-5586
	Email: mcrenshaw@cityofbartlett.org

Summary of Findings and Comments

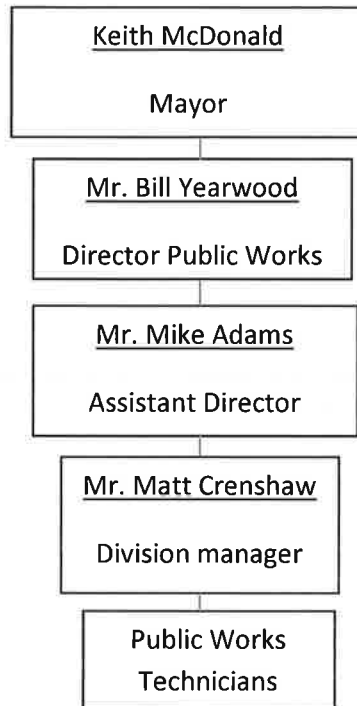
On Thursday, May 9, 2017, Mr. Eddy Bouzeid with the Division of Water Resources, Memphis Environmental Field Office (DWR/MEFO), conducted a Sanitary Sewer Collection System (SSCS) inspection of the City of Bartlett in Shelby County, Tennessee.

Upon arrival at the Bartlett's Public Works Department, Mr. Bouzeid met with Mr. Matt Crenshaw, Water/Wastewater General Maintenance Manager, and Mr. Don Ervin, Bartlett collection system technician, and reviewed the City's sanitary sewer records and discussed its self-monitoring program. Afterwards, Mr. Bouzeid, Mr. Crenshaw and Mr. Ervin inspected one lift station and three sewer manholes. The lift station and the sewer manholes were randomly selected. The following is a summary of the findings and observations:

I. Organizational Chart

At the time of the inspection, an organizational chart for the City of Bartlett's Public Works Department that oversees the sanitary collection system and the lift stations was as follows:

Organizational Chart



According to Mr. Crenshaw, the Bartlett Public Works Department manages, operates and maintains the sanitary sewer collection system and the lift stations.

II. Sanitary Sewer Collection System Description

The City of Bartlett sanitary sewer collection system is described as follows:

1. The service area is approximately 23.4 square miles.
2. The Town population (as of the 2016 Census) is 58,200 residents.
3. The length of the sewer collection system is approximately 336 miles.
4. The system has 20,267 connections:
 - a. 20,199 residential
 - b. 68 commercial
5. The system has a total of 7374 manholes.

At the time of the inspection, the following information was noted:

- The City of Bartlett has no satellite communities tied-in to the City's sewer collection system.
- The Town has GIS mapping for the collection system which include the lift stations. The GIS mapping appeared to include information such as manhole locations, pipe sizes, pipe lengths and lift stations. According to Mr. Crenshaw, the City was

enhancing its GIS mapping to include manhole depths, manhole materials and manhole IDs.

- Fifteen Public Works staff members were dedicated for the operation and maintenance of the collection system and lift stations.
- The City of Bartlett has a sewer use ordinance (SUO). The SUO has no limitations on fats, oils and grease. However, the SUO prohibits against direct storm water discharges into the system and restricts illegal discharges.
- The City has developed a Sewer Overflow Response Plan (SORP) and the plan was last updated in March 2017. The SORP provided the following:
 - Guidelines, processes and procedures for the Town to quickly respond to and relieve SSOs.
 - Procedures to minimize health and environmental impacts.
 - Procedures to perform clean-up operations.
 - Proper reporting of SSOs to regulators.
 - Procedures for providing public notification.

III. Lift Stations

The City of Bartlett operates and maintains twenty four (24) lift stations. According to Mr. Crenshaw, all twenty four (24) lift stations have alarm systems and are inspected weekly. Six (6) out of the twenty four (24) lift stations are big distribution stations and all six (6) are equipped with Supervisory Control and Data Acquisition (SCADA) systems. A log book for the lift stations inspections was available for review.

According to Mr. Crenshaw, seven (7) Public Works technicians are committed to the maintenance and operation of the collection system and the lift stations. Meanwhile, another eight (8) technicians are capable of assuming the same responsibilities.

The 6658 Highway 70 lift station was inspected during the SSCS inspection. The lift station appeared to be operating properly. According to City's records, the lift station was retrofitted in the spring of 2016. The design capacity of the lift station is 200 gpm and has two air lift pumps. The area around the lift station was not fenced, but padlocked for security purposes (photos 1 & 2). According to the log book, this station is inspected weekly.

According to Mr. Crenshaw, the 6658 Highway 70 lift station wet well and air lift pumps are maintained as needed based on the inspector's observation findings. For example, chemical degreasers are available to add at the lift station, if needed, to address grease build-up inside the wet well. At the time of the inspection, no oil sheen was observed in the wastewater inside the wet well (photo 3). The station has an hourly meter and has an audible alarm system. A back-up generator was available for emergency and as an alternate power source.

IV. Sanitary Sewer Overflow

The City of Bartlett reported five (5) sanitary sewer overflows (SSOs) from April 2015 through April 2017. None of the five (5) reported SSOs were reported to have reached Waters of the State. The number of SSOs as reported with the Discharge Monitoring Reports (DMRs) are broken down as follows (Table 1):

Table 1

Date	Address	Amount (gal)	Cause	Actions	Impact to Waters of the state
3-11-2016	5508 Ackerman CV	500	Stoppage/Grease	Jetted Line	No
5-6-2016	5820 Stage Road	1000	Stoppage/Grease	Jetted Line	No
5-15-2016	5930 Sycamore Manor	1500	Stoppage/Grease	Jetted Line	No
5-23-2016	5681 Brenners Place	500	Stoppage/Grease	Jetted Line	No
5-30-2016	2454 Boysenberry St.	300	Stoppage/Grease	Jetted Line	No

As referenced above, the SSO reports contained the dates, locations, causes, estimated quantity of wastewater released and the cleanup/correction procedures utilized to remedy the overflow as required by the permit.

According to Mr. Crenshaw, the length of the Bartlett sewer collection system is 336 miles and for the period from April 2015 through April 2017, 40 miles of the collection system have been inspected. The City is contemplating on inspecting the whole length of the system.


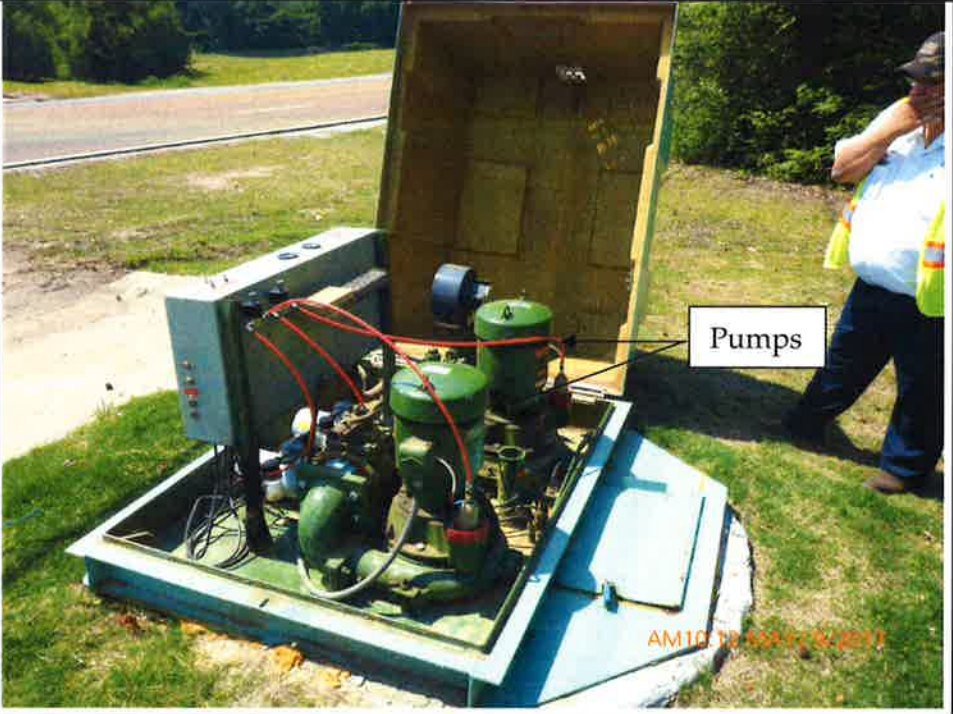
Three additional manholes were also inspected during the inspection. The three manholes were different in types and ages.

- The manhole located at 6487 Cohay is precast lined, 12 feet deep and the flow inside the manhole was normal. No problems, such as grease build up, cracks or debris, with this manhole were observed during the inspection (photo 4 & 5).
- The manhole located at 3520 Curb Stone Cove precast lined, 10 feet deep. No problems with the integrity of the manhole were observed during the inspection (photo 6 & 7). Flow inside the manhole was normal.
- The manhole located at 3588 Charlene is brick/precast lined, considered old manhole and 8 feet deep. No problems were observed during the inspection and the flow inside the manhole was normal (photo 8 & 9).

The City of Bartlett has a Hotline number during and after business hours (901-385-5586) to report SSOs and emergency situations during normal business hours. When a situation

is reported, Public Works will dispatch a collection system technician to address the emergency/complaint.

Photographic Log

Facility Name: Bartlett STP #1		Site Location: Bartlett, Shelby County	Tracking No.: TN0066800
Photo No. 1	Date 5-9-2017	 <p>AM10:14 MAZ 9/2017</p>	
Description View of the 6658 Highway 70 lift station. The lift station is padlocked for security purposes.			
Photo No. 2	Date 5-9-2017	 <p>AM10:19 MAZ 9/2017</p>	
Description View of the control panel and the two 200 gpm pumps inside the lift station.		<div style="position: relative; height: 100px;"> Pumps </div>	

Photographic Log

Facility Name: Bartlett STP #1		Site Location: Bartlett, Shelby County	Tracking No.: TN0066800
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Photo No. 3	Date 5-9-2017	
Description View of inside the wet well at the 6658 Highway 70 lift station. No oil sheen was observed in the wastewater.		

Photo No. 4	Date 5-9-2017	
Description View of the manhole at 6487 Cohay Street. No stains were observed by the manhole to indicate recent overflow or I&I.		

Photographic Log

Facility Name: Bartlett STP #1		Site Location: Bartlett, Shelby County	Tracking No.: TN0066800
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Photo No. <div style="text-align: center;">5</div>	Date <div style="text-align: center;">5-9-2017</div>	<div style="border-bottom: 1px solid black; padding-bottom: 5px;"> Description View of the inside the manhole at 6487 Cohay Street. No grease or solids built-up was observed within the manhole. </div> <div style="padding-top: 10px;">  </div>
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Photo No. <div style="text-align: center;">6</div>	Date <div style="text-align: center;">5-9-2017</div>	<div style="border-bottom: 1px solid black; padding-bottom: 5px;"> Description View of the manhole at 3520 Curb Stone Cove. No stains were observed by the manhole to indicate recent overflow or I&I </div> <div style="padding-top: 10px;">  </div>
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Photographic Log

Facility Name: Bartlett STP #1		Site Location: Bartlett, Shelby County	Tracking No.: TN0066800
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Photo No. 7	Date 5-9-2017	
Description View of the inside the manhole at 3520 Curb Stone Cove. No grease or solids built-up was observed within the manhole.		

Photo No. 8	Date 5-9-2017	
Description View of the manhole at 3588 Charlene. No stains were observed by the manhole to indicate recent overflow or I&I		

Photographic Log

Facility Name: Bartlett STP #1		Site Location: Bartlett, Shelby County	Tracking No.: TN0066800
Photo No. 9	Date 5-9-2017		
Description View of the inside the manhole at Charlene. No grease or solids built-up was observed within the manhole.			